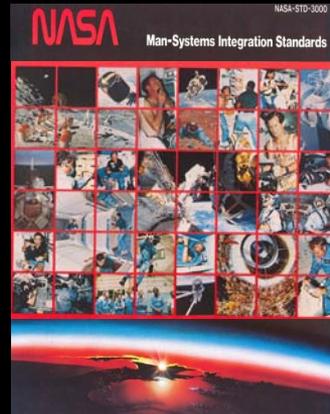


# **NASA-STD-3001**

**NASA SPACE FLIGHT HUMAN-SYSTEM STANDARD  
HUMAN FACTORS, HABITABILITY, AND ENVIRONMENTAL  
HEALTH**

# History of NASA-STD-3000



## NASA-STD-3000:

- Initial publication in 1990
- Served as NASA's first human factors standard
- Specified how to design systems to support human health, safety, and productivity during space flight
- Was applicable to all NASA systems with human crews
- Was written primarily for the International Space Station
- Was last updated in 1995

# NASA-STD-3000

## Space Flight Human-System Standard

- Volume 1 – Crew Health
- Volume 2 – Human Factors, Habitability, and Environmental Health



## Human Integration Design Handbook

NASA Space Flight Human System Standard  
Volume 1  
Crew Health  
Office of the Chief Health and Medical Officer  
Basic  
November 2009  
National Aeronautics and Space Administration

NASA Space Flight Human System Standard  
Volume 2  
Human Factors, Habitability and Environmental Health  
Office of the Chief Health and Medical Officer  
National Aeronautics and Space Administration

NASA Human Integration Design Handbook  
NASA/SP-2010-3407  
Office of the Chief Health and Medical Officer  
Basic  
January 2009  
National Aeronautics and Space Administration

CxP 70024  
Revision A  
Release Date: October 30, 2007  
CONSTITUTION PROGRAM HUMAN-SYSTEM INTEGRATION REQUIREMENTS  
National Aeronautics and Space Administration

- Agency level standards
- Both specific numerical and general criteria (to be tailored for specific programs)

- Updated and expanded NASA-STD-3000 data
- Resource data for development of requirements
- Design resource data

## Program-Level Requirements

# Topics Covered by Both Standard and Handbook

- General – Human Centered Design
  - Physical Characteristics and Capabilities
  - Performance and Cognition
  - Natural and Induced Environments
  - Habitability Functions
  - Architecture
  - Hardware and Equipment
  - Crew Interfaces (controls, displays, HCI)
  - Spacesuits
  - Operations - *reserved*
  - Ground Maintenance and Assembly-  
*reserved*
- 

# Project Status

- Handbook (NASA/SP-2010-3407)
  - On line and accessible to the public
    - <http://ston.jsc.nasa.gov/collections/TRS/techrep/SP-2010-3407.pdf>
    - Link from MSIS site
    - Initially a .pdf – eventually an interactive website
- Standard (NASA-STD-3001, Vol 2)
  - NASA-wide review complete
  - Final NASA all-center on going  
(could be completed by the end of November 2010)
  - Will be publically available on a website



# Questions?

Keith Holubec

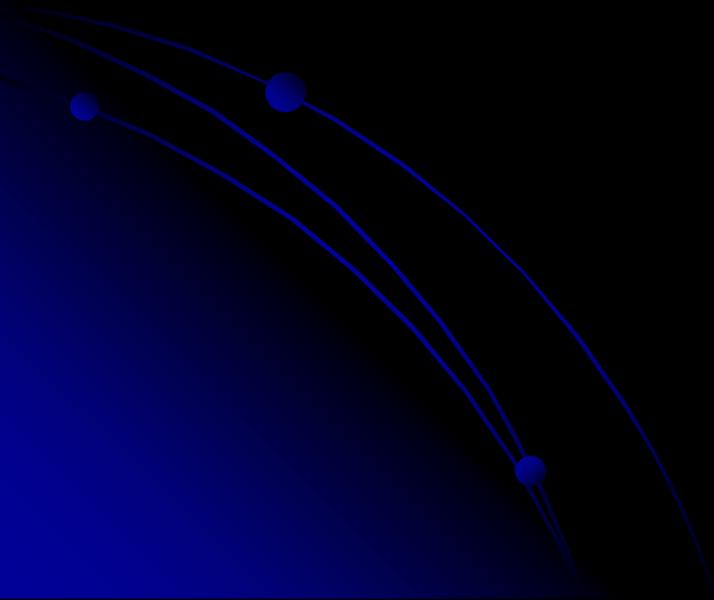
(281) 483-6584

Keith.v.holubec@nasa.gov

*Thank you*



# Back Up Charts



# Standard and Handbook Revision Process

## REVISION SOURCES

Formal<sup>1</sup>  
Input from  
Handbk  
Revision  
Cycle

Formal<sup>2</sup>  
Input from  
Standard  
Revision  
Cycle

Filter &  
Compile  
Inputs

Website  
Input

Other  
Informal  
Inputs

## REVIEW

Standard / Handbook  
Review Team

Review and  
Disposition  
Inputs \*

Database

External  
Posting of  
Database

## STANDARD AND HANDBOOK REVISION

HEFD  
Review  
Board

Scientific  
and Tech.  
Inf. Final  
Edit

Posted  
to JSRS  
Site

Compose  
Final  
Changes to  
Handbook \*

Compose  
Final  
Changes to  
Standard \*

HEFD  
Review  
Board

DCB  
Review  
Board

Eng.  
Standards  
Program  
for Final  
Edit

Eng.  
Management  
Board

Final  
Signoff

Posted  
to NTSP  
Site

\* Subject Matter Expert participation

<sup>1</sup> Habitability and Environmental Factors Division Change Request

<sup>2</sup> NASA Engineering Standards Program Change Request